

# (12) United States Patent

Dishler et al.

# (54) METHOD OF USING SMALL DIAMETER INTRACORNEAL INLAYS TO TREAT VISUAL **IMPAIRMENT**

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- (52) **U.S. Cl.** ...... **623/5.11**; 623/6.11
- (58) Field of Classification Search ...... 623/5.11 See application file for complete search history.

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#### ABSTRACT

Provided herein are small diameter inlays for correcting vision impairments by altering the shape of the anterior corneal surface. In an embodiment, inlays having diameters smaller than the pupil are provided for correcting presbyopia. To provide near vision, an inlay is implanted centrally in the cornea to induce an "effective" zone on the anterior corneal surface, within which diopter power is increased. Distance vision is provided by a region of the cornea peripheral to the "effect" zone. In another embodiment, small diameter inlays are provided that induce effective optical zones on the anterior corneal surface that are much larger in diameter than the inlays. The increase in the effective optical zone, due at least in part to a draping effect, allows an inlay to produce a much larger clinical effect on a patient's vision than the diameter of the inlay.

## 38 Claims, 7 Drawing Sheets

